

A photograph showing a large, messy pile of discarded tires in a wooded area. The tires are stacked haphazardly, some upright and some lying flat, creating a dense mass of black rubber. Green foliage and trees are visible in the background, suggesting an unmanaged waste site. The entire image is framed by a thick purple border.

South Carolina Waste Tire Management Report

**S.C. Department of Health and Environmental Control
Office of Solid Waste Reduction and Recycling**

William W. Culler, Director



Cover Photo: This is how it used to be. This tire pile was removed from Kershaw County in 2000. It contained about 117,000 tires.

South Carolina Waste Tire Management Report

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Foreward

Recycling is one of the top environmental success stories of the past 20 years. Waste tire management has its own chapter in that story, particularly in South Carolina.

Consider, since 1993, more than 7 million waste tires have been removed from illegal stockpiles throughout the state and properly disposed, reused or recycled. The removal not only cleaned up longstanding, unsightly stockpiles but also reduced potential threats to human health and the environment.

The state established goals regarding waste tires following the passage of the S.C. Solid Waste Policy and Management Act (Act) of 1991. The primary goal was to remove and properly recycle tires from illegal stockpiles throughout the state. The second goal was to establish a recycling infrastructure to include collection, transportation and processing of waste tires for reliable end markets.

The Act also created the Office of Solid Waste Reduction and Recycling within the S.C. Department of Health and Environmental Control (DHEC) to oversee many recycling activities, including the management of waste tires.

The success of the stockpile program is due to the funding provided by the fees established in the Act and to the cooperative efforts of the state and local governments to identify and oversee the removal of the tires.

The establishment of a waste tire management infrastructure also has involved a cooperative effort.

Joining the state and local governments in this effort is the tire hauling and processing industries as well as tire retailers and tire manufacturers. As the recycling infrastructure improves and a steady supply of waste tires becomes available, the next goal, establishing strong markets for waste tire material, becomes critical.

There is a sizeable task of identifying and/or helping establish markets for recycled tires. The Office of Solid Waste Reduction and Recycling and the Recycling Market Development Advisory Council within the S.C. Department of Commerce share this task. The establishment of the Asphalt Rubber Technology Service at Clemson University (see page 13) is our largest step to date towards that goal. It is our hope that by creating a demand for value-added uses for waste tire rubber, the continuing problem of what to do with our waste tires will be a thing of the past.

The Office of Solid Waste Reduction and Recycling wants to thank the many organizations and individuals involved in the waste tire story. Most especially we recognize the State Waste Tire Committee, State Solid Waste Advisory Council, the Recycling Market Development Advisory Council, the S.C. Department of Revenue, the S.C. Tire Dealers Association, the Rubber Manufacturers' Association, the Automobile Dismantlers Association, the S.C. Association of Counties and the S.C. Municipal Association.

William W. Culler, Director
DHEC's Office of Solid Waste Reduction and Recycling
May 2002

Waste Tire Piles and the Environment

One tire dropped in a ditch. Twenty tires thrown in the woods. Hundreds of tires dumped in the “back forty” of a farm.

This illegal dumping of tires and other trash is called “open dumping,” “fly dumping” or “midnight dumping” because tires are often dumped in open areas, from vehicles along roadsides, and late at night.

Usually tires are dumped to avoid either disposal fees or the time and effort to properly dispose of them. Sometimes the fines for a dumping offense are less than the costs for disposal and offenders consider the fines to be the cost of doing business.

Illegal dumping is a problem across South Carolina – in big cities, small towns and in rural areas.

Removing tire piles is time consuming and expensive. Many times, more tires will be deposited as soon as a site is cleared. If not cleaned up, tire piles often attract other waste and debris dumping. Costs associated with cleaning up tire piles are significant to government, industry and individuals.



Tires pose several environmental problems and at least two health threats: pests and fire.

Pests, including but not limited to mosquitoes, rats, spiders and snakes, are very comfortable living in piles of tires. The most dangerous pests are the many kinds of mosquitoes that breed in the stagnant water collected in tires. Several varieties can carry deadly diseases like encephalitis, dengue fever and malaria. One mosquito

borne disease, the West Nile Virus, may have arrived in the United States via imported tire casings from Asia.

Although waste tire piles do not spontaneously combust, tire fires are difficult to extinguish and can burn for long periods. Burning tires emit a heavy black sooty smoke, chemicals and hydrocarbons. There is an additional danger from melting petroleum oil that

may contaminate streams and groundwater. The intense heat usually prevents successful firefighting efforts.

Following tire pile cleanups, prevention programs must include laws and ordinances that address the problem, enforcement of state and local laws, public education and a commitment by officials to support these efforts with adequate funding, access to equipment and labor resources.

Tires made up 29,340 tons or 1.8 percent of the total amount of solid waste generated in South Carolina in FY 2000.

Where do waste tires come from?

The Office conducted a survey of in-state and out-of-state processors that were reported to have had tires delivered to them that had been generated in South Carolina.

Based upon hauling records and verified by the survey, about 8 million tires were generated in South Carolina in 2000.

Based on national formulas, vehicle owners and retailers would be expected to generate one tire per person per year - about 4 million tires.

Waste tires are generated by vehicle owners that buy new tires to replace existing tires. In some cases they take these tires to their local government for disposal and in other cases they leave them with the retailer.

Additional tires are generated from several sources. Some of these sources include stockpile clean ups and automobile dismantlers that remove tires from vehicles prior to recycling the vehicles.

Manufacturers generate waste tires during their manufacturing process when certain numbers of tires are deemed for differing reasons to be not-for-sale and must be destroyed. South Carolina is host to two tire manufacturers, Michelin and Bridgestone/Firestone with a total of four production facilities located in the state.

Where do the waste tires go?

Generally, retailers, manufacturers, dismantlers and local governments contract with haulers to transport tires to a location where they are recycled or disposed. In South Carolina, whole tires cannot be disposed of in a landfill. They must be cut into at least eight pieces before they can be landfilled.

Recycling is encouraged in two ways. Retailers are eligible to retain part of the tire fee if they send tires to be recycled rather than destroyed. Local governments also receive part of the tire fee to be used for waste tire recycling. In this way, retailers and local governments are rewarded financially for making sure their tires are recycled and not disposed.



The Michelin plants in South Carolina make aircraft tires, earthmover tires, off-road tires, radial truck tires, and radial auto tires. Michelin has plants in Greenville, Lexington and Spartanburg.

In South Carolina, Bridgestone/Firestone makes passenger and light truck tires. There is plant in Graniteville.

Overview of Waste Tire Management in South Carolina

The S.C. Solid Waste Policy and Management Act (Act) of 1991 started the movement to manage waste tires in the state. The Act provided funds for the disposal and recycling of tires, gave regulatory authority to the S.C. Department of Health and Environmental Control (DHEC) over waste tire facilities and required local governments to assume responsibility for the collection of waste tires.

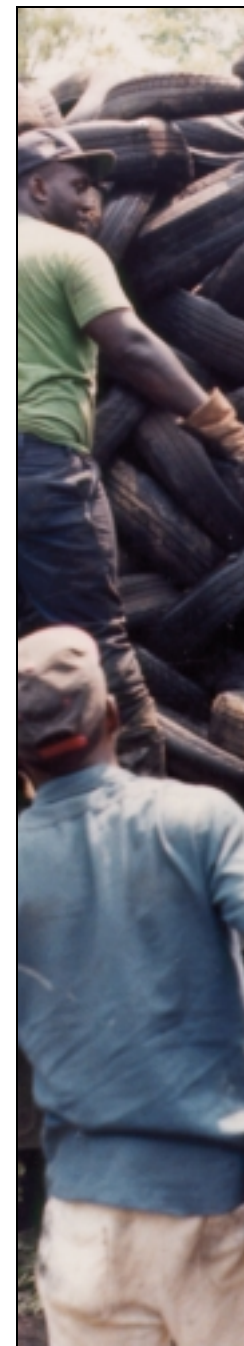
Counties receive funding for waste tires from the grant program administered by DHEC's Office of Solid Waste Reduction and Recycling and the S.C. Department of Revenue. The price of each passenger tire sold in South Carolina includes a \$2 fee to pay for recycling of waste tires. The S.C. Department of Revenue disburses a certain amount per tire to each county, based on population, for local disposal or recycling. Another percentage per tire is placed into DHEC's Waste Tire Trust Fund to provide grant funds to counties for the removal and recycling of waste tires. The funds are used to pay contractor costs for transportation, to dispose or recycle tires and to purchase tire processing equipment to shred tires for burial or for **Tire Derived Fuel (TDF)**. Retailers may keep 3 percent of the fee for administrative costs and an additional \$1 for each tire sent to a permitted waste tire recycling facility.

In 1993, a regulation was passed that banned the disposal of whole tires in solid waste landfills. Prior

to the regulation, burial was the primary choice of disposal by local governments. By 1994, all counties were to have submitted to DHEC a detailed Solid Waste Management Plan that included a section on waste tire management. Local governments were encouraged to develop and implement alternative waste tire disposal practices.

Since the Act there has been a dramatic advancement in tire recycling. Coupled with the disposal ban on whole tires and availability of waste tire management funds, new waste tire industries developed in South Carolina. These industries that include waste tire processors, haulers and recyclers are required to report to DHEC regarding their operations. Reporting, permitting and registration requirements vary according to the type of industry.

Today, the primary uses for recycled waste tires in the state are as TDF and as aggregate in drain fields. TDF is used mainly by cement kilns and by pulp and paper mills. Tire chip aggregate is used in septic system drain fields and in landfill leachate collection systems. In order to encourage additional uses for waste tires, DHEC's Office of Solid Waste Reduction and Recycling awarded a grant to the City of Clemson in conjunction with Clemson University. The grant was designed to promote the use of waste tires in rubberized asphalt paving, in civil-engineering projects and in manufacturing processes to replace virgin rubber.



South Carolina Waste Tire Processing and Use

In 2001, a telephone survey of the state's waste tire facilities and processors was conducted to get a snapshot of waste tire management in South Carolina. The survey showed that about 8 million waste tires were generated in 2000. This figure includes tires removed from automobiles, stockpiles and tires generated by tire manufacturers but not sold to the consumer.

Processors within South Carolina

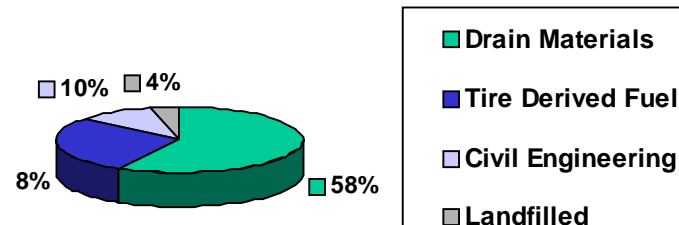
There are seven South Carolina companies that process waste tires. They convert most of the waste tires into chips used for drain fields, septic fields, and leachate collection sites. Ninety six percent of their products were sold in state.

Out-of-State Processors

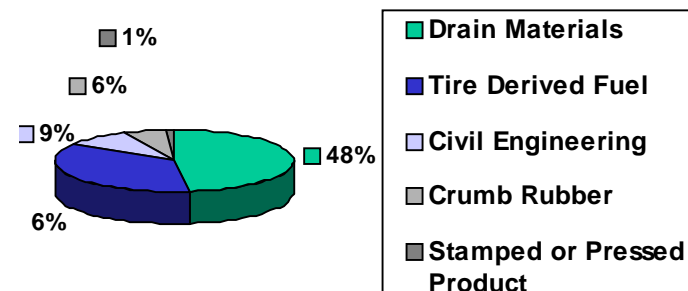
Out-of-state processors sold 43 percent of their products back into South Carolina. They used 48 percent of South Carolina's tires as drain field, septic and leachate material. They converted 36 percent into TDF. Crumb rubber accounted for 6 percent usage. Civil engineering used 9 percent of S.C.'s tires and 1 percent was stamped or pressed into new products.

The fastest growing new markets are playground cover, soil amendments and flooring mats.

How S.C. Tire Processors Used Waste Tires in 2000



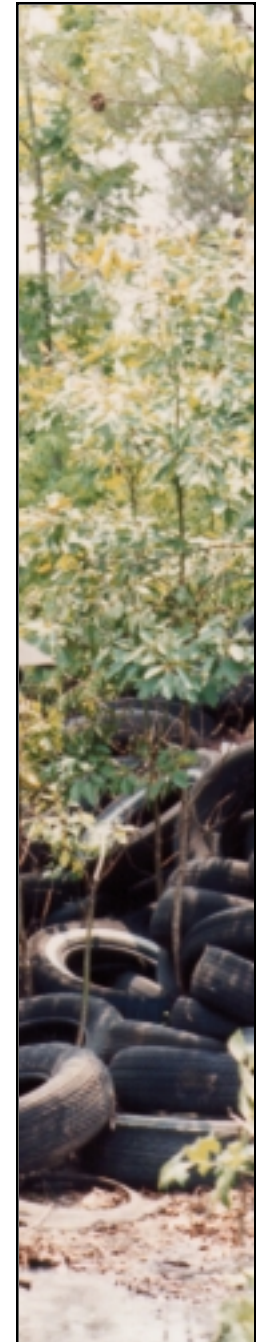
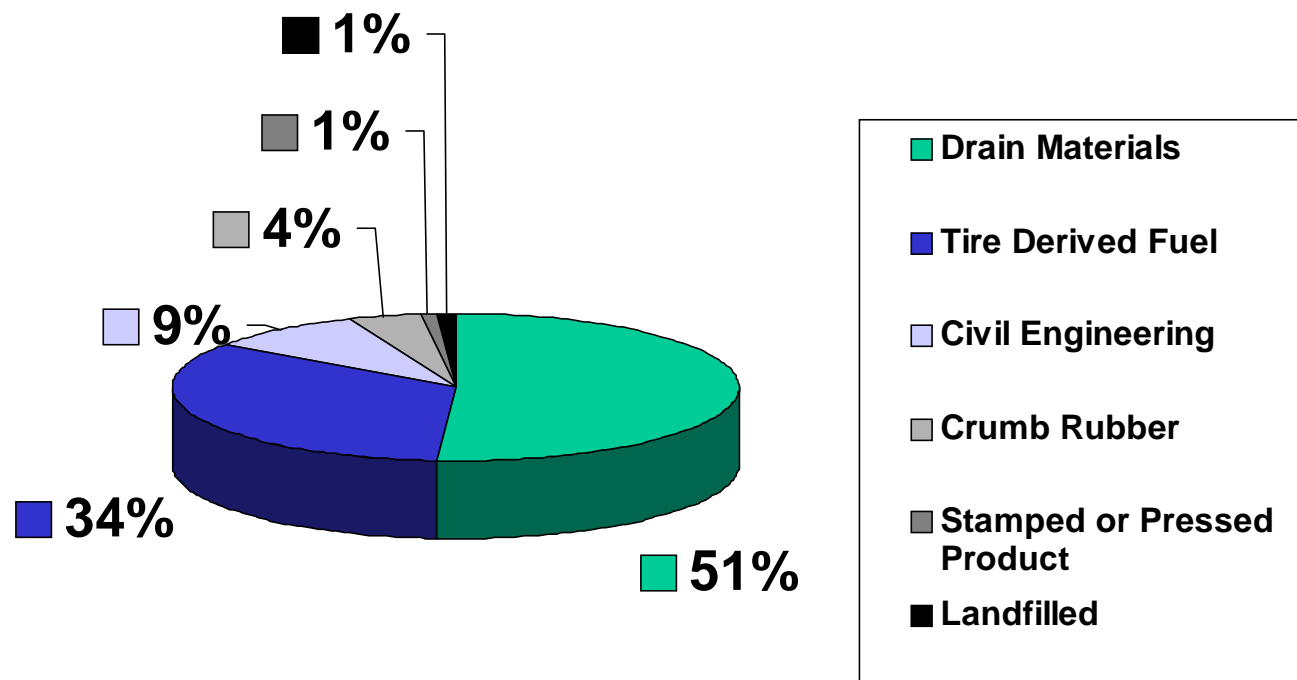
How Out-Of-State Processors Used S.C. Tires in 2000



Below is a list of different tire products and their average price per ton in 2000.

Product	Average Price Per Ton
Drain Field, Septic and Leachate Material	\$17
TDF	\$30
Civil Engineering	\$18
Crumb Rubber	\$80
Stamped or Pressed Products	\$220

2000 S.C. Tire Processing (In-State and Out-of-State)



South Carolina Tire Fee

Thirty states have legislation requiring a tire fee.

There is a \$2 fee for each new tire sold in South Carolina with a U.S. Department of Transportation number. The wholesaler or retailer may retain 3 percent of the total fees collected as an administrative collection allowance (six cents per tire).

The wholesaler or retailer also may apply for a refund of \$1 dollar per tire for each tire delivered to a receiving facility that is approved by the host state as a waste tire recycling facility.

For each tire sold, the Treasurer distributes a proportional share of \$1.50, less any wholesaler/retailer credits or refunds, to each county based upon its population. The county may use these funds for collection, processing or recycling of waste tires generated within the state.

In addition, 50 cents of the tire recycling fee is credited to the Solid Waste Management Trust Fund by the State Treasurer for the Waste Tire Grant Trust Fund administered by DHEC.

DH EC's Office of Solid Waste Reduction and Recycling may provide grants from the Waste Tire Trust Fund to city, county or regional governments to assist in the following:

- (1) Constructing, operating, or contracting with waste tire processing or recycling facilities;
- (2) Removing or contracting for the removal of waste tires for processing or recycling;
- (3) Performing or contracting for the performance of research designed to facilitate waste tire recycling; and

- (4) The purchase or use of recycled products or materials made from waste tires generated in this state.

The \$2 waste tire fee is distributed in two ways depending on how the retailer chooses to dispose of their tires. If the retailer contracts to have a tire recycled, the county receives 44 cents on each tire and the retailer receives \$1.06 for each tire. (See Figure 1) If the retailer takes the tire to the county free of charge, the the county receives \$1.44 for each tire and the retailer receives six cents for each tire. (See figure 2)

Retailer Keeps Waste Tire and Contracts for Recycling

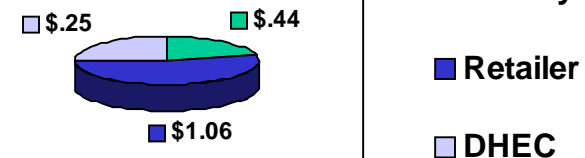


Figure 1

Retailer delivers waste tire to county at no cost: county contracts for recycling

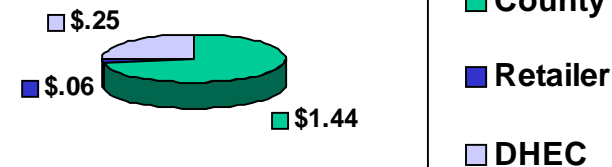


Figure 2

Waste Tire Grants

The Waste Tire Grant program is funded from the \$2 fee on the sale of new tires. Since 1994, the Office has awarded more than \$20 million in Waste Tire Grants.

There are three categories of Waste Tire Grants:

Waste Tire Grants. These grants are made available to counties and cities that provide solid waste services. Grant funding is available for stockpile remediation, for waste tire recycling, for contracts with waste tire haulers or recyclers, and for site preparation and equipment costs associated with waste tire collection and recycling. A limited amount of funding is also available to promote waste tire recycling and for public education efforts. Counties

must have expended their state waste tire disbursements in order to request grant funding.

Automobile Dismantler Waste Tire Grants. These grants are made available only to county governments. The county agrees to accept waste tires free-of-charge from verified automobile dismantlers. DHEC agrees to reimburse the county for its costs to have the tires recycled.

Closed-loop Waste Tire Grants. The Closed-loop grant was offered in FY1997, 1998 and 1999. The grant reimbursed cities or counties for their purchase and/or installation of products made from recycled tires. Walkways, running tracks, playground mats and tire mulch are examples of materials purchased under this program.

Applications are accepted on an ongoing basis for stockpile clean ups and for Automobile Dismantler programs. All other tire grants are available on an annual basis as announced by the Office.

Waste Tire Grant Awards by Year			
Year	Waste Tire	Closed-Loop	Auto Dismantler
1994	\$2,236,180.00	--	--
1995	\$1,720,786.00	--	--
1996	\$1,510,006.53	--	--
1997	\$2,990,883.00	\$207,013.00	\$608,366.00
1998	\$775,912.00	\$1,046,802.00	\$283,079.00
1999	\$927,141.00	\$321,670.00	\$463,269.00
2000	\$1,836,446.00	--	\$235,982.00
2001	\$3,414,297.00	--	\$233,460.00
2002	\$1,712,307.00	--	\$239,181.00
Totals	\$17,123,958.53	\$1,575,485.00	\$2,063,337.00



Stockpiled Waste Tires

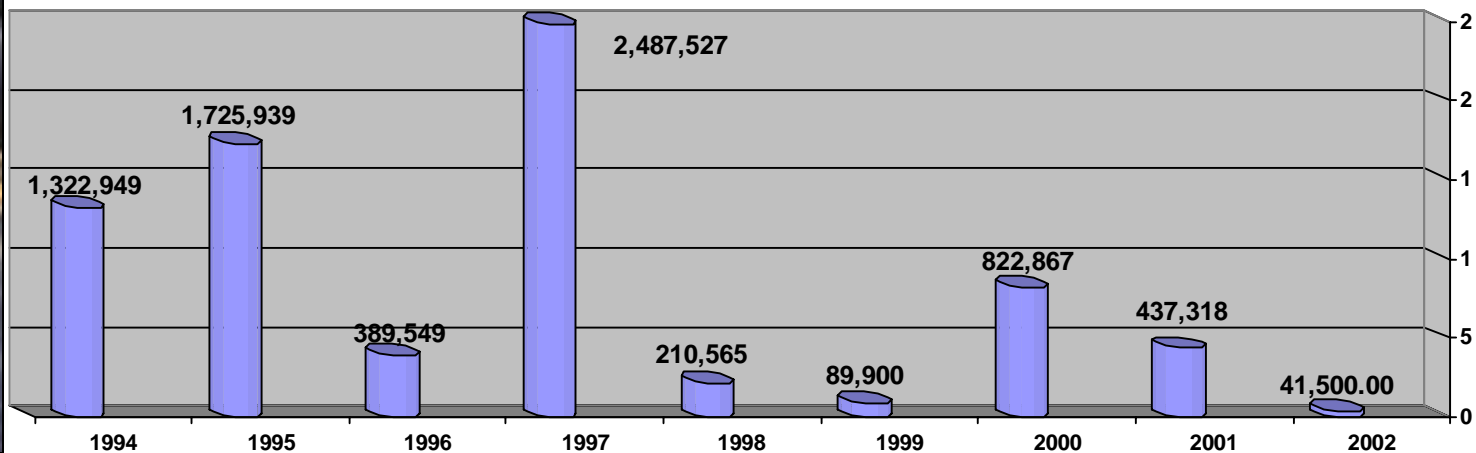
Counties have begun to successfully manage their stockpiles with the help of DHEC grants and money received from the S.C. Department of Revenue. In 2000, South Carolina counties requested funding for the removal of 440,000 waste tires from illegal stockpiles. In 2001, counties requested funds to remove only 41,500 waste tires.

The figure below shows the number of waste tires removed from stockpiles since 1994 with the assistance of DHEC grant funding. While there is a downward trend, stockpiles continue to be identified by local governments in their requests for grant funding. Newly identified stockpiles tend to fall into three main categories: piles which have been in place for a number of years but were not discovered until recently; newly formed piles resulting from illegal dumping or piles remaining at the site of a business that has ceased operations.

Although grant funding may be available for the removal of stockpiled waste tires, the responsibility for tire cleanups remains with the property owner. DHEC attempts to work with the property owner through compliance and/or enforcement actions before recommending the use of grant funding, often working with local law enforcement agencies. DHEC's District Offices (p.20) can investigate cases of illegal dumping.

The decline in the number of stockpiled tires is believed to be the result of tightened regulation of waste tire processors and haulers, better enforcement at the state and local level, and the increase of legal recycling options available to businesses, tire retailers and residents.

**Number of Stockpiled Tires Cleaned Up
in South Carolina from 1994-2002**



New Uses for Old Tires

In 2000, about 273 million waste tires were generated in the United States. Historically, these waste tires took up space in landfills or provided breeding grounds for mosquitoes and rodents when stockpiled or illegally dumped. Fortunately, markets now exist for more than 75 percent of these waste tires. Through innovative uses of waste tires, these markets continue to grow. The remaining waste tires, however, are still stockpiled or disposed in a landfill.

Combustions and Tire-Derived Fuel

The leading use for waste tires is combustion fuel. Tire combustion should no longer bring to mind large billowing clouds of thick black smoke and offensive odors. New technologies and pollution control equipment burn tires at higher temperatures and reduce air emissions. In addition, cement kilns as well as pulp and paper mills supplement more traditional heating fuels, such as oil and coal, with

waste tires. Nationally, these facilities burn about 57 percent of all waste tires annually. As an added benefit, tires produce the same amount of energy as oil and it's about 25 percent more efficient than burning coal. Using tires as fuel also reduces our dependence on non-renewable sources like oil and coal. Both whole and processed tires are used in South Carolina as TDF.



Civil Engineering Projects

Processed tires can be used for many types of civil engineering applications such as light-weight fill for roadbed or embankment construction. They can be used in place of rock or other aggregate in drain fields. In South Carolina, they are

commonly used in household septic systems and in landfill leachate collection systems. They can also be used as a bulking agent in sludge composting operations, taking the place of wood chips.

In 2000, South Carolina used 714,606 waste tires in civil engineering applications.

New Uses for Old Tires

Manufacturing

Waste tires can be processed down to a fine crumb and used in manufacturing operations in place of virgin rubber. Examples of products that could be made using this material includes floor mats, gaskets and automotive parts.

Playgrounds and Landscaping

Increasingly common uses of recycled tires are for playground and landscaping applications. Tires can be chipped into pieces, colored and used in place of mulch in garden beds. The resulting material has the appearance of regular mulch, but stays in place better than a lighter weight tree bark and doesn't decompose. Tires also can be ground into a finer material and used in mats to go under playground equipment or on running track surfaces. This can make a playground or school yard a much safer place for children to play and for runners to run.

Paving

A number of states, notably California, Texas, Arizona and Florida, are using crumbed tire rubber in road paving applications. Finely ground tire material can be used as an additive to the asphalt binder or larger pieces can be used in place of rock as an aggregate which is mixed into the binder. In 2000, DHEC awarded a grant to the City of Clemson to encourage the use of crumb rubber in paving and civil engineering applications. The grant

was awarded for the establishment of the Asphalt Rubber Technology Service (ARTS), at Clemson University. For more information about the ARTS program, please contact Wendy Franzese at Clemson University, 864-656-6799 or see next page.



Ground Tires



Asphalt Rubber Technology Service

The Asphalt Rubber Technology Service (ARTS) is a partnership between Clemson University, DHEC, and the City of Clemson. Funded by DHEC, the \$6 million, five-year project's mission is to promote the use of waste tires in rubberized asphalt paving, in civil-engineering projects and in manufacturing processes to replace virgin rubber. This mission will be accomplished by:

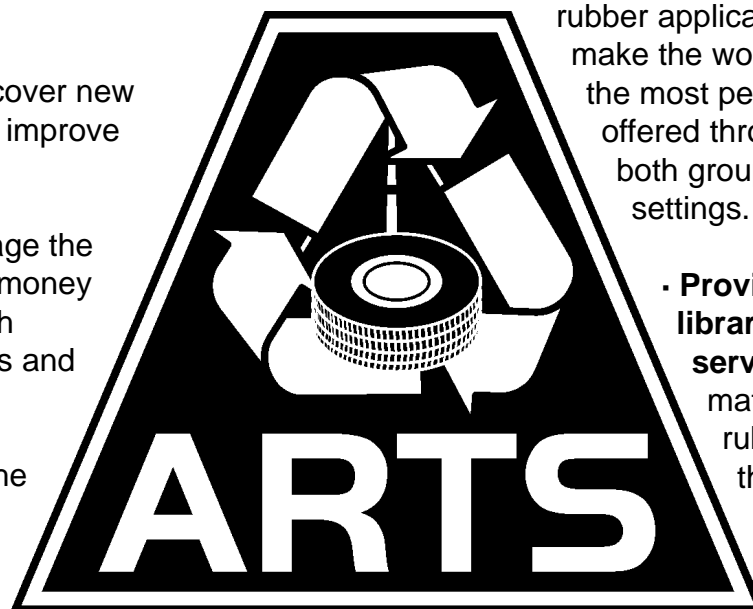
- **Performing research** to discover new uses for waste tires as well as improve upon existing uses.

- **Providing grants** to encourage the use of this technology. Grant money will be made available to South Carolina public works agencies and others interested in using rubberized asphalt and crumb rubber. The grants will cover the difference in cost from using conventional materials versus using materials that contain recycled tire products. ARTS anticipates that \$950,000 will be available per year throughout the five-year program.

ARTS is also offering incentives to agencies receiving ARTS grants. In addition to paying the cost difference cost for using asphalt rubber or rubber in a civil engineering application, ARTS also will pay the agency

a percentage of the base cost of the project. The total incentive amount will not exceed \$30,000.

- **Conducting training** classes and seminars on the use, design, testing and construction of rubberized asphalt and other waste rubber applications. In an effort to make the workshops available to the most people, they will be offered throughout the state in both group and individualized settings.



- **Providing a materials library and information service** containing materials relating to rubberized asphalt and the utilization of crumb rubber in other civil engineering applications. A Web site

(www.ces.clemson.edu/arts) and quarterly newsletter will be used to ensure the continuous flow of updated information.

On the following page are summaries of current ARTS projects.

Waste tires can be ground and used as Crumb Rubber Modifier (CRM). CRM can be blended into hot liquid asphalt, resulting in what is known as Asphalt Rubber Binder.

Asphalt Rubber Binder can be used in traditional Hot Mix Asphalts, crack sealers, Open Graded Friction Courses, Stress Absorbing Membranes and subgrade seals.

Asphalt Rubber Technology Service's Projects

Pickens County School District - Rubberized asphalt projects included bus ramps, parking areas and activity areas at Hagood Elementary School, Central Elementary School, Daniel High School, Liberty High School and Clemson Elementary School. In total, the various projects amounted to about 2,600 tons.

Anderson County - This two-phase project involved about 17,095 lane feet of rubber modified asphalt surface course on Michelin Boulevard near the Anderson County Airport and the new Michelin Tire Facility. Combined, the two phases totaled about 14,500 tons of rubberized mix.

South Carolina Botanical Gardens - Installation of asphalt rubber pavements within the gardens.

Michelin Tire Company - Research designed to determine potential opportunities and economic feasibility of using post-consumer scrap tires and derivatives in new tires.

ARTS Research Facility Demonstration Areas - Various applications from crumb rubber will be used in the construction of the building that will house the ARTS research laboratory and office space. They include a

retaining wall, septic tank and tile field, landscape bedding and of course, asphalt rubber pavement for the parking lot and driveways.

Greenville County - Resurfacing of roadways in the county including the use of stress absorbing membrane interlayers (SAMI) to improve wear and prevent cracking.



An Update on South Carolina and the Ford Tire Recall

Ford Motor Company has entered into a contractual partnership with a company called Recovery Technologies Group (RTG). RTG is responsible for collecting Firestone tires that Ford is voluntarily replacing at Ford and Lincoln Mercury dealerships through an Owner Notification Program (ONP). RTG then crumb the tires for use in environmentally responsible products. The contract stipulated that the tires collected in this recall will not be disposed in a landfill or used for TDF.

To assist them in this effort, Ford Motor Company is helping them find markets and uses for this high quality tire crumb. One of the largest volume opportunities is Rubber Modified Asphalt (RMA). Ford also is looking at tire crumb base poured in place and playground tile opportunities. Since there

is often a price premium associated with these tire crumb products, Ford Motor Company is willing to underwrite some or all of the cost of the tire crumb in these products/projects for a period of time to help stimulate the market.

Ford's stipulations are that the manufacturers of these products use the tire crumb being made by RTG through the ONP, and the product provider be approved or accredited in the use of tire crumb in their products (e.g., the Federal Highway Administration (FHWA) is reviewing RMA projects and paving companies on Ford's behalf). Ford Motor Company then enters into a contractual agreement with an organization, such as a city, county or state agency to repay them for the cost of some or all of the tire crumb as a part of their overall project (e.g., playground or RMA).

According to the International Tire Association (ITA), waste tire generation in the United States for the end of 2000 and beginning of 2001 was up about 20 percent as a result of the Firestone recall. ITA credits the increase to a heightened concern by consumers about the condition of their tires. The increase is believed to be a one-time event and is not expected to continue as a market trend.



**In South
Carolina, 84
percent of
scrap tires are
passenger car
tires.**

South Carolina Waste Tire Regulations

DHEC Regulation R.61-107.3: Solid Waste Management: Waste Tires establishes a comprehensive program to regulate waste tire haulers, collectors, processors and disposal facilities.

The regulation requires the registration of waste tire haulers and permitting of waste tire processors, collectors and disposal facilities. In accordance with the regulation, any person or company engaged in transporting waste tires for the purpose of storage, disposal or processing must be registered with DHEC and shall have a registration number.

The regulation further states that no person or company will operate a waste tire collection site, waste tire processing facility, or a waste tire disposal site, unless the site is permitted in accordance with the regulation. The regulation also addresses closure and post-closure procedures for all permitted and non-permitted waste tire facilities.

The regulation provides a definition for each type of waste tire entity contained therein. As defined in the regulation:

- A waste tire hauler is a person or company that collects waste or processed tires for the

purpose of hauling the waste or processed tires in the state;

- A waste tire collection site is a permitted site used for the temporary storage of waste tires prior to treatment or recycling;
- A waste tire disposal facility is a site where waste tires are disposed of by burial or are recycled;

- A waste tire processor is a site where equipment is used to recapture reusable by-products from waste tires or to cut, burn or otherwise alter whole waste tires so that they are no longer whole.

The S.C. Code of Laws provides that a person in violation of this regulation may be required to comply with the regulation and to

pay a civil penalty not to exceed \$10,000 for each day of violation.

The Code further provides that each day of non-compliance with a regulation or requirement constitutes a separate offense.



Thirty three states ban whole tires from landfills.

Twelve states ban all scrap tires from landfills.

Five states have no landfill restrictions.

Storage Limits for Tires

Current generation tires are waste tires generated from the current sale of new tires. These tires are temporarily stored on site at the retail business or received by a permitted solid waste management facility in quantities of less than 2,500 tires. A solid waste management facility with 2,500 or more waste tires temporarily stored on the premises must be permitted as a waste tire collection facility according to the S.C. Waste Tire Regulations, R.61-107.3.

The quantity is measured by actual count or by estimation, using formulas for calculating the size of a stored tire pile based on shape. The number of tires is estimated using the given quantity of 10 passenger tires or 3.5 truck tires per cubic yard.

Waste Tire Hauler Registration Requirements

Waste tire haulers are identified as anyone, based in or outside the state, engaged in transporting waste tires or processed tires in South Carolina for the purpose of storage, disposal or processing.

A corporate entity or local government may submit an application to register its entire fleet of vehicles. Renewal registrations must be submitted annually prior to March 1st.

Solid Waste Management Regulation R.61-107.3 requires waste tire haulers:

- To register annually with DHEC's Division of Mining and Solid Waste Management;
- Be issued a registration number; and
- To submit a report by March 1st each year.

To receive a registration number, the applicant must complete the S.C. Waste Tire Hauler Registration Form. To renew an existing registration, the applicant must complete the S.C. Waste Tire Hauler Registration Form and submit the S.C. Waste Tire Hauler Annual Report. All DHEC approved registrations are effective from the date of issue until March 1st of the following year.

The required S.C. Waste Tire Hauler Annual Report is a summary of:

- The number of whole tires or processed tires hauled during each calendar quarter;
- The names and locations from where whole or processed tires were hauled; and
- Where whole or processed tires were delivered.



South Carolina Waste Tire Committee

The Waste Tire Committee reviews waste tire grant requests and makes recommendations on grant awards to the Solid Waste Advisory Council. The committee also reviews the use of the waste tire trust fund on an annual basis.

Virgil Autry

DHEC - Radioactive Waste Management
2600 Bull Street
Columbia, SC 29210
(S.C. Department of Health and Environmental Control)

C. Ted Campbell

Recycling Market Development Advisory Council
PO Box 927
Columbia, SC 29202
(Office of the Governor)

Darrell Cobb

Cobb Tire & Service
301 University Ridge
Greenville, SC 29601
(S.C. Tire Dealers and Retreaders Association)

Lynn Cooper

Michelin
Post Office Box 2846
Greenville, SC 29602-2846
(Tire Manufacturers)

Martin G. Hyatt

Charleston County Mosquito Abatement
4370 Azalea Avenue
Charleston Heights, SC 29405
(Public interest and environmental organization)

Michael Criss

SC Department of Natural Resources
2221 Devine Street, Suite 222
Columbia, SC 29201
(S.C. Department of Wildlife and Marine Resources)

Roger LeDuc

City of Aiken
Post Office Box 1177
Aiken, SC 29802
(S.C. Municipal Association)

Colin Covington

Three Rivers Solid Waste Authority
PO Box 850
Aiken, South Carolina 29802
(S.C. Association of Counties)

Mary Pat Baldauf

Keep The Midlands Beautiful
P.O. Box 1360
Columbia, SC 29202
(The General Public)

Tiaa Booker

Central Midlands COG
236 Stoneridge Drive
Columbia, SC 29210
(S.C. Association of Regional Councils)

South Carolina Solid Waste Advisory Council

The Solid Waste Advisory Council must approve all grants made from the Waste Tire Fund. In addition, they provide technical expertise in the area of solid waste management and are advised on an annual basis regarding the status of the Solid Waste Trust Fund.

William W. Culler, Director

Office of Solid Waste Reduction and Recycling
2600 Bull Street
Columbia, SC 29201
(S.C. DHEC)

Alex Shissias

S.C. DHEC
2600 Bull Street
Columbia, SC 29201
(Governor's Office)

Philip S. Porter

Consumer Advocate
PO Box 5757
Columbia, SC 29250-5757
(The Consumer Advocate)

C. Ted Campbell

Recycling Market Development Council
PO Box 927
Columbia, SC 29202
(The Department of Commerce)

Johnny W. Jeffcoat

Nine Regatta Court
Columbia, SC 29212
(The Public)

Gregg Varner

13 Romney Street
Charleston, SC 29403
(County Government)

Bruce Palmer Loveless

Loveless & Loveless Sand
1703 Screaming Eagle Road
Lugoff, SC 29078
(Solid Waste Disposal)

Bernard Steinberg

Charleston Steel & Metal Company
PO Box 814
Charleston, SC 29402-0814
(At Large – Private Recycling Industry)

Perry D. Stephens

The Timken Company
100 Timken Road Mail Code GAF-01
Gaffney, SC 29341
(Manufacturing)

Vickie Williams

City of Greenville
Post Office Box 2207
Greenville, South Carolina 29602
(Municipalities)

Everett Ronald Andrews

City of Myrtle Beach
164 Lander Drive
Conway, SC 29526
(Municipalities)

Ernest B. Segars

Laurens County Administrator
PO Box 445
Laurens, SC 29360
(County Government)

Rose N. Dobson

201 Jackson Ave W Suite 100
Hampton, SC 29924
(County Government)

Ronnie Allison

Advantica
PO Box 93
Lyman, SC 29365
(Retailing Industry)

Gregory G. Yorston

Waste Management, Richland Landfill
1047 Highway Church Road
Elgin, South Carolina 29405
(Solid Waste Disposal Industry)

Virginia S. Sanders

EPEC Conservation Organizer
Sierra Club-SC Chapter
1314 Lincoln Street
Columbia, SC 29209
(The Public)

List of South Carolina Recycling Coordinators

All counties have at least one designated tire site. Counties with a * also accept tires at drop-off sites.

Local Government	Recycling Coordinator	Phone
Abbeville	Candace Southard	864.446.8473
*Aiken, City of	Kenny Cook	803.642.7613
Aiken County	Bill Anderson	803.642.1533
Allendale County	Gene Smith	803.584.3438
Anderson County	Vic Carpenter	864.260.1001
Aynor, City of	Sherry Gerrald	843.358.6231
Bamberg County	Watson Carter	803.245.3023
*Barnwell County	Charles Eubanks	803.541.1109
Beaufort, City of	Isiah Smalls	843.525.7054
Beaufort County	Jim Minor	843.846.3918
Bennetsville, City of	Tommy Bostick	843.479.9001
*Berkeley County	Annette Harmon	843.572.4400 ext 3015
Calhoun County	Kenneth Rickenbaker	803.874.2435
Charleston County	Linda Slater	843.720.7111 ext. 26
Cheraw, Town of	Tommy Lewis	803.537.8430
*Cherokee County	Bill Schalk	864.487.2760
Chester, City of	Raymond Douglas	803.581.1405
Chester County	Bob Corcoran	803.377.1717
Chesterfield County	Tim Eubanks	843.623.2464
Clarendon County	Madeline Braxton	803.473.3357
Clemson, City of	David Conner	864.653.5053 or 2047
Clinton, City of	Ralph Lewis	864.833.7505
Columbia, City of	Robert Anderson	803.733.8456
Conway, City of	Steve Stack	843.248.1730
Colleton County	Terease Buckner	843.893.2313
Cowpens, Town of	Shirley Reynolds	864.463.3201
Darlington County	Gary Diestler	843.398.4810
Dillon, City of	Meredith Townsend	843.774.0040
Dillon County	Meredith Townsend	843.774.1400
*Dorchester County	Carolyn Tomlinson	843.563.3441
Edgefield County	Tim Fox	803.275.5345
*Fairfield County	Jasper Adams	803.635.5209
Florence, City of	Faye Gainey	843.665.3296
Florence County	Thomas Shearin	843.665.3035
Forest Acres, City of	Don Poeta	803.782.4719
Fort Mill, Town of	David Hudspeth	803.547.2034
Fountain Inn, City of	Roger Case	864.409.3334
Georgetown County	Cynthia Geathers	843.545.3452
Greenville, City of	Steve Myers	864.467.4345
*Greenville County	Vickie Williams	864.627.8433
*Greenwood County	Donna Sightler	864.942.8754
*Greer, City of	Ricky Wofford	864.848.2184
*Hampton County	Dobie Hiers	803.943.7565
Hartsville, City of	Ryan Lesesne	843.383.3019
Horry County	Elly Manley	843.347.1651

Local Government	Recycling Coordinator	Phone
*Jasper County	Rudy Smith	843.726.7740
Jackson, Town of	Bonnie Stikeleather	803.471.2228
*Kershaw County	Lisa Owens	803.425.7187
Lake View, Town of	Norma Simmons	843.759.2861
*Lancaster County	Joe McLemore	803.283.2101
Latta, Town of	Robyn Richardson	843.752.5115
*Laurens County	Dennis Ginn	864.682.2415
Lee County	William Conway	803.484.5341
Lexington County	Donna Hendrix	803.755.3325
Lexington, Town of	Dan Walker	803.359.1027
Loris, City of	Vicky Huggins	843.756.4004
Mauldin, City of	Mike Watkins	864.234.3485
Marion, City of	L. Frazier Waldrop	843.423.5961
*Marion County	Tina Swinton	843.423.8234
*Marlboro County	Lewis Cooper	843.479.5636
McCormick County	Tim Fox	803.275.5345
Mullins, City of	J.C.Richardson	843.464.9583
Myrtle Beach, City of	Linda Ladd	843.918.2000
Newberry County	Debbie Cromer	803.321.2100
New Ellenton, Town of	Barbara Long	803.652.2214
Nichols, City	James Little	843.526.2193
N. Augusta, City of	Tom Zeaser	803.441.4220
N. Charleston, City of	Greg Spencer	843.745.1026
N. Myrtle Beach, City of	Lent Williams	843.280.5537
*Oconee County	Melissa Grant	864.888.1440
*Orangeburg, City of	Durwood Bowden	803.535.6000
Orangeburg County	Herman Fields	803.536.5045
*Pickens County	Rick Reeves	864.850.2080
Richland County	Cynthia Jones	803.576.2062
Rock Hill, City of	Dana McKnight	803.329.5539
Saluda County	Tim Fox	803.275.5345
*Seneca, City of	Mark Krabbe	864.885.2750
Simpsonville, City of	Vacant	864.967.9531
Spartanburg, City of	Bob Bradley	864.596.3690
Spartanburg County	Mary Lynn Eaddy	864.595.5340
Sumter, City of	Herbert Williams	803.436.2558
Sumter County	Karen Hyatt	803.436.2241
Tega Cay, City of	Jeanne Varner	803.548.3512
Union County	vacant	864.429.1600
Walhalla, City of	James Moore	864.638.4351
West Columbia, City of	Myron Corley	803.791.1880
Westminster, City of	William Strachan	864.647.3200
*Williamsburg County	Richard Zarella	843.382.2881
Winnsboro, Town of	Ronnie McDaniel	803.635.4041
York, City of	Charles Helms	803.684.2341
York County	Leslie Hatchell	803.628.3195

DHEC Environmental Quality Control District Offices

APPALACHIA I

2404 N. Main Street
Anderson, SC 29621
Phone: (864) 260-5569
(Anderson, Oconee)

APPALACHIA II

301 University Ridge, Suite 5800
Greenville, SC 29601
Phone: (864) 241-1090
(Greenville, Pickens)

APPALACHIA III

975 N. Church Street
Spartanburg, SC 29303
Phone: (864) 596-3800
(Spartanburg, Cherokee, Union)

CATAWBA

2475 DHEC Road
Lancaster, SC 29720
Phone: (803) 285-7461
(Lancaster, Chester, York)

CENTRAL MIDLANDS

P.O. Box 156
State Park, SC 29147
Phone: (803) 896-0620
(Richland, Lexington, Newberry, Fairfield)

LOW COUNTRY

104 Parker Drive
Burton, S. C. 29906
Phone: (843) 846-1030
(Beaufort, Jasper, Colleton, Hampton)

LOWER SAVANNAH

206 Beaufort Street, NE
Aiken, SC 29801
Phone: (803) 641-7670
(Aiken, Orangeburg, Barnwell, Bamberg, Allendale, Calhoun)

PEE DEE

145 E. Cheves Street
Florence, SC 29506
Phone: (843) 661-4825
(Florence, Dillon, Marion, Marlboro, Darlington, Chesterfield)

TRIDENT

1362 McMillan Ave. Ste 300
Charleston, SC 29405
Phone: (843) 740-1590
(Charleston, Berkeley, Dorchester)

UPPER SAVANNAH

613 South Main St.
Greenwood, SC 29646
Phone: (864) 223-0333
(Greenwood, Abbeville, Laurens, Saluda, Edgefield, McCormick)

WACCAMAW

1705 Oak St. Plaza/Suite #2
Myrtle Beach, SC 29577
Phone: (843) 448-1902
(Horry, Georgetown, Williamsburg)

WATEREE

P.O. Box 1628
Sumter, SC 29151
Phone: (803) 778-6548
(Sumter, Kershaw, Lee, Clarendon)



South Carolina Department of Health
and Environmental Control

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